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| APPLICATION NO.   | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO.         | CONFIRMATION NO. |
|---|-------------|----------------------|-----------------------------|------------------|
| 10/817,143  | 04/02/2004  | Curtis G. Neason     | 141223IC                    | 1505             |
| 61604   | 7590        | 10/09/2007           |                             |                  |
| PETER VOGEL<br>GE HEALTHCARE<br>3000 N. GRANDVIEW BLVD., SN-477<br>WAUKESHA, WI 53188 |             |                      | EXAMINER<br>LAMPRECHT, JOEL |                  |
|   |             |                      | ART UNIT                    | PAPER NUMBER     |
|   |             |                      | 3737                        |                  |
|   |             |                      | MAIL DATE                   | DELIVERY MODE    |
|   |             |                      | 10/09/2007                  | PAPER            |

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

|                              |                                      |  |  |
|------------------------------|--------------------------------------|--|--|
| <b>Office Action Summary</b> | <b>Application No.</b><br>10/817,143 | <b>Applicant(s)</b><br>NEASON, CURTIS G. |  |
|                              | <b>Examiner</b><br>Joel M. Lamprecht | <b>Art Unit</b><br>3737                  |  |

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 13 June 2007.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-22 is/are pending in the application.  
     4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-22 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
     a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

**DETAILED ACTION**

***Response to Amendment***

***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims rejected under 35 U.S.C. 103(a) as being unpatentable over Ben-Haim et al. in view of Gilboa (US 2004/0006268). Ben-Haim et al. disclose a system including one or more probes for gathering electrical information pertaining to the heart (Fig 2,3, and Col 9 Line 43-53), a processor which can process electrical information and imaging information pertaining to the heart (Col 19 Line 16-55), a display (Col 17 Line 45-60), image processing tools (Col 17 Line 45-60, Col 18 Line 25-45), ultrasound imaging acquisition system (also mentioned are an MR imaging system and CT imaging system) (Fig 12, Fig 15 and Col 18 Line 25-45), a positioning system for locating the probes, used to create a structural map of the heart and define the position of the probes (Col 19 Line 6-15, Col 18 Line 25-60, Fig 13, Fig 10A-D), a mapping function configured to process information about the structure as well as the placement/position of in vivo probes (Col 15 Line 43-65, Col 17 Line 32- Col 18 Line 25), image reconstruction tools (Col 20 Line 20- Col 21 Line 30, Claims 1 and 13), a construction

algorithm based on multiple image slices (Col 17 Line 30 – Col 18 Line 5), the creation of a three-dimensional image/map based on position information from the electrophysiology 3d mapping system (Fig 13, Fig 15 Col 17 Line 30-45) pacing and non-pacing logic for the heart within the electrophysiology monitoring logic (Col 19 Line 40-65), and reporting logic for electrical information as pertains to the heart (Claims 1, 13 and Fig 15). Ben-Haim also discloses a mapping system, which uses different colored markers for different time acquisitions (Col 20 Line 20-45).

Ben-Haim et al do not specifically mention a “macro” for acquisition of a final vital measurement, though they do start and stop an ECG function in accordance with the activation and termination of an imaging process (and control that by indication of VT) and they do as well display information about the heart on a monitor, however they do not mention printing a report. Furthermore, they do not mention a segmentation tool for isolating an area of interest along with a contour-tracking tool for tracing an external surface of a structure. The algorithm for segmentation and contouring that is suggested is a method of feedback for proposing additional data mapping in regions where data values are changing rapidly. These proposed regions are then further analyzed to produce a defined outline or border of data. The cursory element would be a symbol disposed on the display (Column 20 Line 40 – Column 21 Line 20). Attention is also paid to the secondary reference by Gilboa et al which, in the same area of endeavor, discloses the use of computer guided data storage (0229), boundary defining methods (0215-0218) and acquisition of data sets only during specific times during the heart cycle (0211). It would have been obvious to one of ordinary skill in the art to use a

printed report of the stored data from schematic (Figure 18) and to have used the boundary defining algorithms for image segmentation or contour mapping of areas where edge values are changing rapidly.

### ***Conclusion***

2. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

3. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. US patents 6950689, and 7174201 contain a wealth of information on electrophysiology systems similar to that which is disclosed.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joel M. Lamprecht whose telephone number is (571) 272-3250. The examiner can normally be reached on Monday-Friday 7:30AM-4PM.

Art Unit: 3737

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Brian L. Casler can be reached on (571)272-4956. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

JML 9/29/07

  
BRIAN L. CASLER  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 3700

19/ 15-40 Time